EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREAST MILK AMONG EMPLOYED POSTNATAL MOTHERS IN SOTHUPAKKAM, KANCHIPURAM DISTRICT

By

Ms. G. ELAIYAMUDHA

A Dissertation submitted to

THE TAMILNADU Dr.M.G.R MEDICAL UNIVERSITY, CHENNAI

IN PARTIAL FULFILMENT OF THE REQUIREMENT

FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL 2012

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREAST MILK AMONG EMPLOYED POSTNATAL MOTHERS IN SOTHUPAKKAM, KANCHIPURAM DISTRICT

By

Ms. G. ELAIYAMUDHA

M. Sc., (Nursing) Degree Examination,

Branch – III, Obstetric and Gynaecological Nursing,

Adhiparasakthi College of Nursing,

Melmaruvathur – 603 319.

A dissertation submitted to

THE TAMIL NADU Dr.M.G.R.MEDICAL UNIVERSITY, CHENNAI

In partial fulfilment of the requirement for

the Degree of **Master of Science in Nursing , April - 2012.**

Internal Examiner **External Examiner**

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREAST MILK AMONG EMPLOYED POSTNATAL MOTHERS IN SOTHUPAKKAM, KANCHIPURAM DISTRICT

APPROVED BY DISSERTATION COMMITTEE

April – 2012

Signature: _____

Dr. N. KOKILAVANI, M.Sc. (N)., Ph.D.,
PRINCIPAL AND HEAD OF THE DEPARTMENT – RESEARCH,
ADHIPARASAKTHI COLLEGE OF NURSING,
MELMARUVATHUR - 603 319.

Signature: _____

DR.K.SIVANKUMAR, M.D., D.G.O.,
DEPARTMENT OF OBSTETRIC AND GYNAECOLOGY,
MELMARUVATHUR ADHIPARASAKTHI INSTITUTE OF
MEDICAL SCIENCE AND RESEARCH,
MELMARUVATHUR - 603 319.

Signature: _____

PROF.S.SHENBAGAVALLI, M.SC., (N),
HEAD OF THE DEPARTMENT - OBSTETRIC AND GYNAECOLOGICAL NURSING,
ADHIPARASAKTHI COLLEGE OF NURSING,
MELMARUVATHUR - 603 319.

A DISSERTATION SUBMITTED TO

THE TAMILNADU Dr.M.G.R. MEDICAL UNIVERSITY, CHENNAI

IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL – 2012

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREAST MILK AMONG EMPLOYED POSTNATAL MOTHERS IN SOTHUPAKKAM, KANCHIPURAM DISTRICT

By

Ms. G. ELAIYAMUDHA

M. Sc., (Nursing) Degree Examination,

Branch – III, Obstetric and Gynecological Nursing,

Adhiparasakthi College of Nursing,

Melmaruvathur – 603 319.

A Dissertation submitted to

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY,

CHENNAI

IN PARTIAL FULFILMENT OF THE REQUIREMENT

FOR THEDEGREE OF

MASTER OF SCIENCE IN NURSING

APRIL – 2012.

CERTIFIED THAT THIS A BONAFIDE WORK OF

Ms. G. ELAIYAMUDHA

ADHIPARASAKTHI COLLEGE OF NURSING

MELMARUVATHUR-603 319.

SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING FOR THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY,

CHENNAI – 600 032.

COLLEGE SEAL

SIGNATURE

Dr.N.KOKILAVANI ,M.SC.,(N), M.A (Pub.Admn).,M.Phil.,Ph.D.,

PRINCIPAL,

ADHIPARASAKTHI COLLEGE OF NURSING,

MELMARUVATHUR – 603 319,

KANCHIPURAM DISTRICT,

TAMIL NADU.

ACKNOWLEDGEMENT

I express my deep sense of gratitude to our **FOUNDER**, **HIS HOLINESS ARUL THIRU AMMA**, for his blessings and guidance, which enabled me to reach up to this level and to complete my study.

I am grateful to **THIRUMATHI. LAKSHMI BANGARU ADIGALAR, Chief executive officer,** Adhiparasakthi College of Nursing, Melmaruvathur, for given me the opportunity to pursue my study in this prestigious institution.

With great respect and honor, I extend my thanks to our beloved **SAKTHI THIRUMATHI B.UMADEVI., M.Pharm., Ph.D., correspondent** , Adiparasakthi college of nursing , Melmaruvathur for her sscompassionate spirit of stalwart support throughout the study.

It is my longing to express my profound gratitude and exclusive thanks to **Dr. N.KOKILAVANI, M.Sc (N)., Ph.D., PRINCIPAL**, **Head of Department – Research**, Adhiparasakthi College of Nursing, Melmaruvathur who is a source of glory, providing scholarly touch, encouragement and valuable support to frame the study in a right way and this to a fine shape.

I wish to express my heartfelt gratitude to **Dr. K. SIVAN KUMAR, M.D., D.G.O.,** Head of Department of Obstetric and Gynaecology, Melmaruvathur Adhiparasakthi Institute of Medical Sciences and Research**,** , Melmaruvathur, for the encouragement and support throughout my study.

I wish to extend my thanks to **DR.C.SUSILA, M.SC(N),Ph.D., Principal, Billroth College of Nursing, Chennai**, for the content validity and valuable suggestions for this study.

I am greatly indebted and express my sincere gratitude to **Prof. B. VARALAKSHMI, M.Sc. (N)., M.Phil., Vice Principal**, Adhiparasakthi College of Nursing, Melmaruvathur, for her constant support, expert advice, and valuable guidance to complete the work systematically.

I acknowledge my deep sense of heartfelt thanks to **Prof**.**S.SHENBAGAVALLI M.Sc. (N),** Head of the department, Obstetric and Gynaecological Nursing, Adhiparasakthi College of Nursing, Melmaruvathur, for her suggestions to complete my study.

I acknowledge my special thanks to **Ms.S.SHAKILA**,**M.Sc.(N),** Reader, Department of Obstetric and Gynaecological Nursing, Adhiparasakthi College of Nursing, Melmaruvathur, for her suggestions to complete my study.

I acknowledge my deep sense of heartfelt sincere thanks to **Mrs. V. VASANTHA LAKSHMI, M.Sc(N).,** Lecturer, Department of Obstetric and Gynaecological Nursing, Adhiparasakthi College of Nursing, Melmaruvathur, for her suggestions to complete my study.

I express my grateful thanks to **Mrs. V.SHIRLEY SATHYA, M.Sc(N).,** Lecturer, Department of Obstetric and gynaecological nursing, Adhiparasakthi college of nursing, Melmaruvathur, for her valuable suggestions to complete my study.

I wish to extend my thanks to **Mr. B. ASHOK M.Sc., M.Phil,** Lecturer in Biostatistics, Adhiparasakthi College of Nursing, Melmaruvathur, for his assistance in statistical analysis and making the dissertation in a great success.

I feel pleasure to extend my gratitude and sincere thanks to **Mr. A. SURIYANARAYANAN,M.A., M.Phil.,** Lecturer in English, Adhiparasakthi College of Nursing for his assistance and great support in this study.

I would like to thank all the **TEACHING FACULTY MEMBERS**, Adhiparasakthi College of Nursing, Melmaruvathur for their help during the study.

I wish to express my gratitude to **MR.A.CHANDRAN**, **LIBRARIAN,** Adhiparasakthi college of nursing, Melmaruvathur for permitting me to utilize the books, dissertations and journals for my study.

I would like to thank all the **NON TEACHING STAFF MEMBERS**, Adhiparasakthi College of Nursing, Melmaruvathur for their help during the study.

I would like thank to **THE TAMILNADU DR. MGR. MEDICAL UNIVERSITY LIBRARY** for reference books and journals for my dissertation.

I am specifically grateful to the participants of my study for their sincere co- operation and interest which showered upon the successful completion of this study, without which my venture would not be a fruitful one.

Finally I extend my thanks to all, who helped in my venture.

LIST OF APPENDIX

CHAPTER I

INTRODUCTION

Breast feeding is a complex interaction between mother and infant that has enhanced or inhibited by wide range of social, psychological, and physiological factors. The first feed deserved special attention. In some societies, the first contact with food is traditionally an important ritual occasion.

Breast feeding is a biological process that is highly influenced by various psychological and environmental factors such as education, occupation, family support and nutrition. The way in which breast feeding is initiated in the early postnatal period is an important process likely to continue for the growth of the infant.

Breast milk provides the main source of nourishment in the first year of life. More affluent societies all over the globe, breast feeding appears to have become a lost art and feeding bottle has suppressed the breast feeding. A great asset in India is that an average Indian mothers although poor in nutritional status has a remarkable ability to breast feed her infant for prolonged period. Longitudinal studies indicated that poor Indian women secreted as much as 400-600 ml of milk per day during the first year.

Breast feeding provides significant health benefits for infants and mothers. **The American academic of pediatrics and the American college of obstetrics and gynecology** has policy statement supporting breast feeding that reflect recent advancement in understanding the mechanism underlining the benefits of breast feeding and in the clinical management of breast feeding . Despite of popular belief that there are few contraindications to breast feeding, providing maternal support and structured antenatal and postpartum breast feeding education are the most effective means of achieving breast feeding a success. In addition immediate skin-skin contact between the mother and infant has shown to improve early initiation of breast feeding outcomes.

BABY FRIENDLY HOSPITAL INITIATIVE: In1992, United Nations Children's Fund and World Health Organization launched the baby friendly initiative amongst doctors, nurses, health workers and parents, in hospitals and maternity centers to promote, protect and support breast feeding. The object is to reestablish the superiority of breast feeding in order to protect the newborn's health by becoming baby friendly. To fulfill the initiative of **UNICEF and WHO** laid down ten steps to correct the baby friendly environment.

These are: (i) there must be a written breast feeding policy, (ii) all health care staff must be trained to implement this policy. (iii) all pregnant women must be informed about the benefits of breast feeding. (iv) mothers should be helped to initiate breast feeding with in half-an- hour of birth. (v) mothers are shown the best way to breast feed. (vi) unless medically indicated, the newborn should be given no food or drink other than breast milk. (vii) to practice 'rooming in' by allowing mothers and babies to remain together 24 hours a day. (viii) to encourage demand breast feeding. (ix) no artificial teats to babies should be given. (x) breast feeding support groups are established and referred to them on discharge**.**

Breast milk has been traditional food for newborn babies. It fulfills not only the physical need for optimum growth but enhances emotional and intellectual development. It prevents all the infections from infant period to adult hood. Humanization of animal milk can never be reality as it would not be possible to add milk the immunological components, growth factors, hormones, enzymes and other components that make human milk a veritable living tissue.

Nutrition is one of the basic needs of living organisms, be they are born or even while they are in their mother's womb. By nature the fetus gets its nutritional requirements from his/her

mother from her womb and after birth from mother's breast milk. Breast milk contains an ideal balance of nutrients for the complete growth of body and brain; more than a food it is a multipurpose medicine, rich in anti infective factors which protect the baby.

Breast milk contains a number of protective substances including anti-bodies, disease resistant factors and antimicrobials. The nutrients which are needed by the baby like carbohydrate, protein, fat, minerals and vitamins are available in simple form in the breast milk. All these factors that inhibit disease and promote infant maturation make the breast milk a real boon for healthy infants until the middle of the first year of their life.

Although breast-feeding has been recognized as pre-requisite for growth and development of healthy child, in the modern urban setting, it is complicated by the increasing tendency of women to work in situations where they are separated from their infants and depend on the formula feed. About 50% of the women had been employed when they become pregnant and return to their work places when their children are three months old.

Breast milk is of particular importance for low birth weight and sick newborns. These babies often require prolonged hospitalization and benefit most from the biochemical and protective factors present in mother's milk. Often, however,

mothers of these babies have lactation problems and may find it difficult to keep up their breast milk supply. Factors responsible for this include perinatal stress, anxiety, and separation from baby due to work. Breast milk contains several anti-infective factors like lactoferrin and high level of bifidus factors which protect the baby from infections, viable phagocytic, macrophage, lymphoid cells. Para amino benzoic acid provides protection against malaria, large protein content causes lower solute load on the kidney. The active fat lipase in the breast milk promotes digestion of fat and provides free fatty acids.

Today many women have chosen to work after they have a baby, many must return to work because of economic necessity. If a mother has to breastfeed her infant successfully during the period of separation, she must learn the art of breast milk expression and storage; mother can express breast milk and store it in a refrigerator or in a cool place to feed her baby in her absence

Expressed breast milk can be collected and stored in sterile plastic container and after the breast milk is collected, it should be cooled immediately by placing it in a refrigerator or on ice in a cooler, where ever possible, breast milk should be given fresh so that infant receives all its benefits. If milk is stored in refrigerator, it

should be brought to room temperature and then it should be given to infant.

NEED FOR THE STUDY

Breast feed is the most natural feed and breast milk is the best milk. The basic food of infant is mother's milk. Since the breast milk is essential for the infant's health, the mother has to continue the exclusive breast feeding. But in cases of working women, they can feed their child only when they are getting leisure time. One of the other methods through which the working women can manage their baby's health is through expressed breast milk. Expression of breast milk is beneficial to both the baby as well as the mother; it provides nutrition to the child and prevents breast complications also.

Premature cessation of exclusive breast feeding and introduction of formula feed unnecessarily exposes children to the risk of infection and malnutrition. About 1.4 million deaths of child aged below two years are due to the sub optimal breast feeding practices. 20% of neonatal death can be prevented by enacting exclusive breast feeding. **World health Organization, American college of Pediatrics and American academy of paediatrics, and Gynaecology,** United states preventive service task force, all

recommended feeding the baby for first six month only with breast milk.

Mother working outside the home is one of the reasons for early weaning in 2005, 9% of women who got married and had a child of one year of age or younger returned to the work. Recent surveys show that the rate of working women increased up to 82%-86%. Lack of support and knowledge regarding management of breast feeding while employed, a non –supportive work environment, and problems of expressing breast milk are frequently given as reasons that working in easily. **The American Academy Pediatrics (2010)**, all address the importance of supporting breast feeding mothers who return to the work force. They recommend providing appropriate facilities and adequate time for manual expression in the workplace.

Mori J Good Win (2010) a study was conducted on middle class mothers on breast feeding duration and employment at Washington. The survey reveals that the usual duration of breast feeding is significantly shorter for working women, which 16 weeks average compared with the 25 weeks for non working mothers.

Progona et al.,(2009) a study was conducted to assess the knowledge and attitude on employed mothers regarding breast feeding among 60 employed mothers at Bangalore. The study

reveals that 46.60% of the mothers knew that working mother can continue breast feeding by feeding with expressed breast milk and can be stored at room temperature for 6-8 hours. The researcher has also recommended an education programme to be developed with regard to expression and storage of breast milk for employed mothers.

Sheegan et al.,(2009) a prospective study was conducted that clinical support can make the difference in exclusive breast feeding success among working mothers. The study compared with an intervention group of mothers (146) who had been given handouts on how to practice hand expression of breast milk and storage method with a control group.

A world wide survey conducted by **WHO (2010) s**howed that every year, there are about million infants born, of which majority (85%) are in the developing countries. Before they reach the age of one year, 10% of these children died and another four percent die before they are five years old. The major cases for the mortality and morbidity among infants and children are due to malnutrition (40%), diarrhoeal disease (15%) and infectious diseases (30%). This can be prevented by meeting the nutritional needs of the infants through breast-feeding.

Although breast-feeding has been recognized for healthy child growth and development, in the modern urban setting, it is complicated by the increasing tendency of women to work in situations where they are separated from their infants and depend on the formula feed. About 50% of the women had been employed when they become pregnant and return to their work places when their children are three months old.

Premature cessation of exclusive breast-feeding and introduction of pre lacteal feed unnecessarily exposes children to the risk of infection and malnutrition. In developing countries, where the infant formula is rapidly replacing human milk, the death rate due to infection is higher and malnutrition starts earlier and is more severe.

Rapid industrialization and urbanization increases the stress for women to seek gainful employment outside their homes. Maternal employment has been cited as the major reason for the decline in breast feeding. A recent survey of middle class mothers on breast feeding duration and employment by Ruby lukose in India showed that the usual duration of breast feeding is significantly shorter for working mothers, which is 16 weeks on average compared with 25 weeks for mothers not working.

In India there are a lot of mothers who are working, so there is a need to develop a module on expression and storage of breast milk, with a view that the health professionals for the employed mothers could utilize this module as a health education material. The module can also help the mothers to practice hand expression of breast milk in order to develop skill before returning to work, which will support them to cope with their employment along with breast – feeding.

Kumar G (2010) Wrote an article and stated that early and unrestricted breast feeding offers health benefits for both mother and baby prevents many common difficulties such as engorgement in mother's, nipple confusion in the breast.

WHO recommendation(2011) Breast feeding is the optimal way to feed an infant . It greatly improves quality of life by providing unique nutritional , immunological , economical, ecological, psychological and child spacing benefits **.**

Mortin , R,.(2010) Said that breast care is directed at maintaining cleanliness and adequate breast support is necessary for the normal function of the breast and the comfort of the mother.

All these studies shown that though most working women want to do the best for their children, they lack information on the benefit of breast milk, and the method of expression and storage of

breast milk. So encouragement before and after delivery is very important.

Hence investigator find it important to give a teaching programme on expression of breast milk in order to develop a skill before returning to work, which will support them to cope with their employment along with breast feeding.

From the above studies it is evident that, mothers who return to work are constantly under the stress as to how to manage breast-feeding and employment. Usually these mothers wean earlier and their infants are at the risk of infections. Along with this, the various difficulties faced by the employed mothers to continue breast-feeding, initiated the investigator to undertake a study in order to enable the breast-feeding mothers to make a successful transition to the work place.

STATEMENT OF THE PROBLEM

EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREASTMILK AMONG EMPLOYED POSTNATAL MOTHERS IN SOTHUPAKKAM, KANCHIPURAM DISTRICT.

OBJECTIVES

- to assess the level of knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.
- to determine the effectiveness of structured teaching programme regarding expression and storage of breast milk.
- to find out the association between post test knowledge and attitude of postnatal mothers with their demographic variables.

OPERATIONAL DEFINITIONS

EFFECTIVENESS

It is the extent to which an action produces (or) intended (or) desired outcome. The study refers to the extent to which structured teaching programme on expression and storage of breast milk among employed postnatal mothers.

STRUCTURED TEACHING PROGRAMME

It refers to the systematically planned teaching strategy designed to provide information on expression and storage of breast milk.

BREAST MILK

Breast milk is the white liquid produced by post natal women to breast feed their babies.

EXPRESSION AND STORAGE OF BREAST MILK

Refers to expressing breast milk by manual expression (or) using breast pumps and storage of breast milk at room temperature.

EMPLOYED POST NATAL MOTHERS

It refers to the postnatal mothers, those who are working after the birth of a child and extending for about six weeks.

HYPOTHESIS

H_1 There is a significant difference between the pre and post test scores on knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.

H_2. There is no significant association between post level of knowledge and attitude regarding expression and storage of breast milk and demographic variables among employed postnatal mothers.

ASSUMPTIONS OF THE STUDY

1. Employed postnatal mothers will have inadequate knowledge regarding expression and storage of breast milk.

2. Structured teaching programme regarding expression and storage of breast milk will improve the knowledge and attitude of the employed postnatal mothers.

DELIMITATIONS

The study is limited to:

- Mothers who are willing to participate
- Mothers who can interact in Tamil or English.
- Duration of data collection only the 6 weeks.
- Mothers those who are working.

PROJECTED OUTCOME

- This study helps the mothers to get adequate knowledge and attitude regarding expression and storage of breast milk.
- The findings on the demographic characteristics will help to identify the factors, which are influencing the mothers to improve the knowledge and attitude regarding expression and knowledge.

CONCEPTUAL FRAMEWORK

Concept is defined as a complex mental formulation of an object (or) event that is derived from the individual's perception and experience. A study that has its root in the specified conceptual model is often called as a conceptual framework.

The conceptual frame work for this study directed from "General system theory". According to general system theory, it is a set of interacting art with in boundary which makes the system work well to its overall objectives.

General system theory is useful for the whole process in to essential task to ensure goal realization. The number of part of the system is totally dependent on what is needed to accomplish the goal (or) purpose. The goal is necessary for any system to function. The aim of the study is to improve the knowledge on mothers regarding expression and storage of breast milk. **Bertalanffy** explained that the system has four major aspects.

1. Input
2. Through put
3. Out put
4. Feed back.

INPUT

It is any form of energy, information and matter that enters in to a system through its boundaries.

- → Pretest is done to assess the knowledge of employed postnatal mothers regarding expression and storage of breast milk.
- → Structured teaching programme for employed postnatal mothers in terms of knowledge regarding expressed breast milk feeding practices.

THROUGH PUT

It is the process that occurs in between the input & output process. In this study, throughput refers to structured teaching programme on knowledge and attitude regarding expression and storage of breast milk feeding practices.

OUTPUT

It is energy material information that is transferred to the environment. In this study output is the change in the knowledge and attitude regarding expression and storage of breast milk for employed postnatal mothers. Further it includes evaluating the structured teaching programme and knowledge regarding expression and storage of breast milk among employed postnatal mothers. Knowledge is interpreted as adequate knowledge,

moderately adequate knowledge and inadequate knowledge regarding expression and storage of breast milk.

FEED BACK

Feedback is the result of output. It allows the system to monitor its internal function. So that it can either increase or restrict its input. Feedback is necessary for those who belong to the group that falls under in adequate knowledge, moderately adequate knowledge. Group subsequent session will be performed during the home visit, which will increase their knowledge on expression and storage of breast milk.

CHAPTER II

REVIEW OF LITERATURE

Review of literature is a systematic identification, location, scrutiny and summery of written materials that contains information on research problem.

Review of literature is an essential step in the research project. It provides basis for future investigation, justifies light on the feasibility of the study, reveals contains of data collection and relates the findings from one study to another with a hope to establish a camp comprehensive study of scientific knowledge in a professional discipline, from which valid and pertinent theories may be developed.

Review of literature for the present study has been organized under the following headings.

I. Review of literature related to breast feeding and its importance.

II. Review of literature related to expression of breast milk.

III. Review of literature related to storage of breast milk.

I.Review Of Literature Related To Breast Feeding and its importance.

Breast feeding network of India (2011) stated that breast feeding saves infant life. The result showed, infants 14 times less likely to die from diarrhea , 4 times likely to die from respiratory diseases and 3 times less likely to die from other infections as compared to a bottle feed infants.

Pilleberi.A.,(2010) conducted a study on breast care. The result described that the women should wash her breast daily with clear water at the time of her bath or shower and then dries them with a soft towel. Soap should be avoided because it tends to dry and crack nipples leading to fissures and breast abscess.

Hoyer, H., (2009) Conducted a study on successful breast feeding as a result of a health education programme for mothers and results found out that the written instructions as well as personal encouragement by the field nurse exerted a favourable influence on breast feeding practices which was taken as a guide line for our further professional work and change of standards in the field of breast feeding promotion.

Taskin L A.,(2009) Conducted an experimental study on impact of breast care techniques on prevention of possible post natal nipple problems. The result showed that applying warm

compresses or expressed breast milk was more effective in preventing cracked nipples and keeps the nipples dry and clean. The number of cases with nipple pain was less in the group that applied expressed breast milk.

Jennifer Callen, et.al., (2008) conducted a study on breast feeding is benefit for preterm infants. The result showed that by proper breast feeding the infant was protected from nutritional, gastrointestinal, immunological, developmental, and psychological disorder. This way, researchers and clinicians can begin to understand the barriers to breastfeeding at various time periods in the breastfeeding experience and begin implementing strategies to remove these barriers.

Reamf. M et.al. (2008) conducted a study on breast feeding among employed mothers. The objective of the study to protect, promote, and support breastfeeding among women in the labor force is an important global issue that requires greater attention. An increasing proportion of women of child-bearing age are employed outside the home. The study concludes Women who resume full-time work outside the home when their infants are young tend to have shorter durations of breastfeeding and less exclusive breastfeeding. The special needs of women working outside the home; provide a brief overview of the literature; and

address international policy regarding the protection, promotion, and support of breastfeeding among women who work outside the home.

Bezek SK et.al., (2007) conducted a study on maternal employment has been associated with decreased duration of breastfeeding. The result says that anticipatory guidance specifics such as feeding patterns, guidelines for pumping and storing breast milk, and information regarding available resources are clinical knowledge areas that pediatric health care providers must have to increase breastfeeding rates and duration among women who return to the work force after the birth of their baby.

Quarles A,et.al.,(2007) The authors examined the breastfeeding duration and management of two groups of mothers with different exposures to services of a Certified Lactation Consultant (CLC) .Results showed that: (a) mothers at H1 had significantly longer durations of breastfeeding than peers at H2 (b) a significantly greater proportion of mothers at H1 attained their intended duration of breastfeeding compared to mothers at H2 group and (c) in a stepwise multiple regression analysis, intended length of breastfeeding accounted for 18% of the variance in duration of breastfeeding, mothers' age 9%, and mothers'

education 3%. The results support the theory of reasoned action and the theory of patient education.

Bear K,et.al.,(2007) described the components of early follow-up and guidelines for assessment. The result states, management strategies for common problems are discussed, such as nipple soreness, cracked nipples, plugged ducts and mastitis, insufficient infant weight gain, perceived inadequacy of milk supply, breast-milk jaundice, sexual adjustment and failure at breastfeeding. Breastfeeding guidelines for employed mothers and adoptive mothers are indicated.

lewallen LP et.al.,(2006) conducted a study on prevention of breast complications among post natal mothers. To examine the sixty-eight percent of women were still breastfeeding at 8 weeks, although 37% of those reported supplementing with formula. Of those who had stopped, the most common reason was insufficient milk supply. Other reasons included painful nipples and latch problems, personal reasons, returning to work or school, and drugs/illness of the mother or baby. Most women received help with breastfeeding in the hospital, but only 55% received help with breastfeeding after hospital discharge. Every opportunity should be taken to address these issues both in the hospital and through follow-up calls.

Hill PD et.al.,(2006) determined the difference in milk volume occurred among mothers with and without breastfeeding experience who used either a single or double breast pumping regimen the first 5 weeks postpartum. The results showed that mothers with previous breastfeeding experience had greater milk weights over time, but weights were not significantly different when compared with those mothers with no previous breastfeeding experience. The findings of the two repeated analyses indicated the complexity of the milk production response, and the importance of considerations of environmental as well as physiologic factors.

Callen J et.al., (2006) conducted a study to identify the barriers to the successful establishment and maintenance of breastfeeding in very-low-birth weight (VLBW) infants, both in the hospital and after discharge, and changes in barriers over time. The result indicated the need to address time-period-specific barriers encountered during the breastfeeding experience of mothers of VLBW infants.

II. Review of literature related to expression of breast milk.

Slusser wm et.al.,(2011) conducted a study to assess the barrier for breastfeeding women working full-time outside the home: breast milk expression in the workplace. The result showed, mothers express breast milk about twice a day when infants are 4 months old and 6 months old with a significant decline in frequency (P <.05) comparing the 2 age groups. Most mothers spend 1 hour or less expressing breast milk when infants are or 6 months old with a significant difference (P <.05) between the 2 age groups. Mothers of younger infants were no more likely to work fewer days per week than were mothers of older infants.

Labiner-Wolfej et.al.,(2009) stated that eight -five percent of breastfeeding mothers of infants in the youngest age group had successfully expressed milk at some time since their infant was born. The study reporting in all 3 age groups, expressing milk on a regular schedule, compared with occasionally, was positively associated with maternal employment and the use of an electric versus manual breast pump.

Hopkinson J, et.al.,(2008) described the mechanical characteristics of breast pumps have been shown to influence milk extraction and hormone release in laboratory settings. The study

evaluated the impact of a novel pump design on milk extraction, milk fat content, maternal hormone response, maternal satisfaction, long-term milk production, and duration of breastfeeding following return to the workforce.

Sisk P,et.al.,(2008) identified the patterns of factors that supported or hindered initiation of breast milk expression and maintenance of breast milk production after the birth of a very low birth weight (VLBW) infant in a sample of US women with varied prenatal infant feeding intentions. The result showed that family support, positive attitudes toward pumping, and anticipation of breastfeeding supported maintenance of breast milk production. From these data emerge points of intervention where additional support could improve mothers' experiences and increase duration of breast milk feeding.

Meier PP et.al.,(2008) evaluated the effectiveness of an evidence-based breastfeeding program (Rush Mothers' Milk Club) for mothers and their very-low-birth-weight (VLBW) infants. The Rush Mothers' Milk Club effectively achieved lactation outcomes that approach the national health objective, although the mothers had significant risk factors for initiating and sustaining lactation. The findings have important implications for clinicians, researchers, administrators, and policy makers.

Chapman DJ et.al.,(2008) investigated the effects of breast pumping before the onset of lactation on early milk transfer and subsequent breastfeeding duration among women giving birth by cesarean delivery. The result showed breast pumping did not improve milk transfer during the first 72 hours postpartum and may negatively affect breastfeeding duration among primiparous women. Lactation, lactogenesis, breast milk, breast pumping, milk expression, breastfeeding, cesarean delivery.

Spicer K.et.al., (2008) established that breast milk is the best source of nutrition for the premature infant. The clinical nurse has the opportunity to educate the mother on the importance of breast milk for the premature infant and to support the mother through the course of pumping. The result says the importance of educating the bedside nurse regarding the physiology of lactation so that the mother is adequately assisted in expressing breast milk for her vulnerable infant.

Hayes DK et.al.,(2007) conducted a study on duration of breastfeeding. Our findings suggest that the manual breast pump may work as well as the electric breast pump when breastfeeding is encouraged and supported among women returning to work or school full-time. Particular attention should be given to examining

reasons why women with greater education breastfeed for a shorter duration

Sarah N.et.al., (2007) explored the breastfeeding women's experiences of expressing breast milk. The most common reason for expressing milk was to "store extra breast milk". The most important reason was "not enough milk"/"to make more milk". The majority of women used an electric breast pump, and this method of expressing was preferred by 59% of women. Adverse effects of pumps were pain and damage to nipples. Breast pumps may have a role in enabling women to extend the duration of breast milk feeding, but further research is needed.

Binns CW et .al.,(2006) investigated the association between expression of breast milk and breastfeeding duration. This study found that mothers who express breast milk are more likely to breastfeed to six months (any breastfeeding). While further research is required in different cultures to confirm these results, the appropriate use of expressed breast milk may be a means to help mothers to achieve six months of full breastfeeding while giving more lifestyle options.

Dykes F et.al.,(2006) described the lived experience of breast feeding, in primiparous women. The main focus was upon women's perceptions related to the adequacy of their breast milk,

for the purpose of exclusively nourishing their babies. Perceived breast-milk inadequacy is underpinned by a complex and synergistic interaction between socio-cultural influences, feeding management, the baby's behavior, lactation physiology and the woman's psychological state.

Meehan K et.al.,(2005) enumerated the importance of electric pump loan program designed to facilitate breastfeeding for low-income mothers returning to full-time work was evaluated. Mothers who received an electric pump as soon as requested did not request formula until 8.8 months on average, whereas those who did not receive an electric pump requested formula on average at 4.8 months. Mothers who received an electric pump when requested were 5.5 times as likely as mothers who did not receive an electric pump to not request formula at 6 months.

Morton J et.al.,(2005) conducted a study on pump-dependent mothers of preterm infants commonly experience insufficient production. We observed additional milk could be expressed following pumping using hand techniques. We explored the effect on production of hand expression of colostrum and hands-on pumping (HOP) of mature milk. Mothers taught HOP increased MDV (48%) despite pumping less. Mothers of preterm

infants may avoid insufficient production by combining hand techniques with pumping.

Mitoulas et.al., (2005) compared breastfeeding and expression characteristics in 30 mothers of exclusively breastfeeding, healthy term infants. The result shows the mean breastfeed volume was similar to the volume of milk expressed in a 5-minute period. Furthermore, this study is the first to establish protocols that allow for the objective determination of breast pump efficacy.

Pantazi M et.al.,(2005) reported the two surveys of nurses and midwives working in a large pediatric hospital and three neonatal units regarding support for mothers to provide breast milk. The result illustrate the need for appropriate breastfeeding policies and staff training. There is a particular lack of studies based in the United Kingdom on breastfeeding in pediatric units. It is hoped that this article will generate discussion among staff about the breastfeeding support they offer and ways to strengthen it.

III. Review of literature related to storage of breast milk.

Francis J.et.al., (2010) conducted a study on storage of both human milk and artificial baby milk, or infant formula. The

result of the study was the bottle used in this study had measurable and decrease in the mean concentration of ascorbic acid.

Cossev. V.et.al.,(2010) conducted a study in neo natal intensive care unit with the increasing uses of human milk and growing evidence of the benefits of mother's milk for preterm and ill newborn. The study implicated strict hygiene and care full temperature is important during the expression, collection, transport, and storage of maternal milk. In contrast to formula milk, no legal standards exist for the use of expressed maternal milk.

Turoil D,et.al.,(2009) investigated the extent formula milk and stored breast milk which was commonly used in hospitals, could be pro-oxidant sources for new born babies. The finding of the study was, all the considered lipid per oxidation product were higher in human milk than formula, and lipid per oxides were much higher in human milk stored at 20 degrees C. many differences were found between different formula milk.

Johnson C.J.et.al.,(2009) analyzed the effects of methods of collection and storage on nutrients in human milk. These findings indicate that collection methods and storage procedures used for comparatively brief periods will affect the concentrations of the collection and storage of milk.

May berry.L.J.et.al.,(2008) conducted a study data on breast milk expression, collection and storage practices. The result of the study shows 88% of the mothers reported having received information on breast feeding from ICN nurses, 47% were not provided with written take-home instruction. 18% mothers considered discontinuing breast milk collection citing insufficient milk supplies and time requirement citied as common reasons.

Pittard W.Bet.al.,(2008) conducted a study on working mother's breast milk. It is the bacteriostatic quality of without benefit of refrigeration. the finding of the study was thus, mother who expressed milk for their own infants while at work may assume that the bacterial contamination of their milk will not increase significantly for Up to but no longer than 6 hours after expression, if they have no access to refrigeration

Larson .E.et.al.,(2007) A bacteriological content of ex[pressed breast milk studied in 30 mothers at the time of expression and after 24 and 48 hours of refrigeration. There were no significant differences in colony count between the three time intervals. The study concluded that it is bacteriologically safe to refrigerate expressed breast milk for up to 48 hours.

ReynoldS.G.J (2006) A simplified system of human milk banking, milk supplied from home or hospital, has been evaluated

for use in a neonatal intensive care unit.20 milk samples were obtained at a single expression using a standard hand pumps and divided into three parts .the study concluded that milk can be safely and conveniently stored by this method without loss or damage to the components of raw breast milk important for preterm and newborn infants.

CHAPTER-III

METHODOLOGY

This chapter deals with the description of methodology and different steps which, had been undertaken for gathering and dramatizing data for the investigator to determine the effectiveness of structured teaching programme on knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers in sothupakkam, Kanchipuram district.

RESEARCH DESIGN

Pre experimental one group pre test post test research design was used to assess the effectiveness of structured teaching programme on knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.

SETTING

The setting selected for the study had been the residential areas in sothupakkam village, Kanchipuram district.

POPULATION

The target population of this study was employed postnatal mothers who were residing in sothupakkam, Kanchipuram district.

SAMPLE SIZE

Sample size consists of 60 employed postnatal mothers who met the inclusion criteria**.**

SAMPLING TECHNIQUE

Systematic sampling technique had been used to select the sample. Those who fulfill the inclusion criteria had been selected.

CRITERIA FOR SAMPLE SELECTION

Inclusion criteria

- Postnatal mothers who are all employed.
- Postnatal mothers who could understand Tamil / English
- Postnatal mothers who are willing to participate in the study

Exclusion criteria

- Employed postnatal mothers who had been selected for pilot study
- Mothers having children more than one year of age
- Postnatal mothers who were not co-operative to the study

DESCRIPTION OF THE INSTRUMENT

The instrument used for data collection was an interview schedule. This was developed based on the objectives of the study and through review of literature. The Instrument consists of three parts,

PART I: questionnaire for demographic variables

PART II: questionnaire to assess the knowledge of postnatal mothers regarding expression and storage of breast milk.

PART III: A three point Likert scale was used to assess the attitude of employed postnatal mothers regarding expression and storage of breast milk.

CHAPTER IV

DATA ANALYSIS AND INTERPRETATION

This chapter deals with analysis and interpretation of data collected from 60 samples of employed postnatal mothers in a selected residential areas at sothupakkam, kanchipuram disticrict.

It deals with description of tool, report of the pilot study, reliability, validity and informed consent, scoring procedure, scoring interpretation, data collection procedure and statistical method.

DESCRIPTION OF THE TOOL

The instrument was classified into 3 parts.

PART I

It consists of demographic variables of employed postnatal mothers in a selected residential areas at sothupakkam, such as age of mother, education and occupational status of the mother, monthly income, type of family, religion ,number of children , previous experience with expression and storage of breast milk, and source of information . The data had been collected by questionnaire method.

PART II

The data was collected through the well prepared multiple choice questionnaire. It consists of 25 questions and total score were 25. Each correct response carries a score of ‘one’ and the score of wrong answer is zero. A total score of multiple choice questions was 25.

PART III

A three point Likert scale was used to assess the attitude of employed postnatal mothers regarding expression and storage of breast milk.

REPORT OF PILOT STUDY

The pilot study was conducted in selected residential areas of sothupakkam for a period of one week .The questionnaire method had been used to find out the reliability, validity, feasibility and practicability of the tool and which was evaluated by experts of the Research committee.

The investigator used systematic sampling technique to select the 6 samples by using paired “t” test, the effectiveness of structured teaching programme on knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers had been assessed. The result of the pilot study showed that there was an improvement in knowledge and attitude of employed postnatal and the conduction of study was found to be feasible.

VALIDITY

The tool was prepared by the investigator based on literature review, under the guidance of experts and on the basis of objectives, which had been assessed and evaluated, approved by Experts of Research committee. The content validity of the tool was obtained from research experts from the field obstetrics and gynecological nursing.

RELIABILITY

The assessment tool was developed by the investigator based on the review of literature, which was evaluated and approved by the experts of the Research committee. Reliability was checked by split-half method. The reliability was 0.71. Reliability and practicability of the tool was tested through the pilot study and used for main study.

INFORMED CONSENT

The dissertation committee prior to the pilot study approved the research proposal. The oral consent from each employed postnatal mother was obtained before starting the data collection.

DATA COLLECTION PROCEDURE

The main study was conducted in residential areas of sothupakkam village. The investigator introduced herself to the employed postnatal mothers and developed a good rapport and made them to cooperate and accept for the study. After getting demographic data from the employed post natal mother's. Mothers' pre test was done with the help of the prepared tool. After the pre test, structured teaching programme was administered using charts and handouts. After seven days the post test was done to evaluate the effectiveness of teaching programme by using same evaluation tools. Based on the collected data effectiveness was found by comparing the pre test and post test score.

SCORE INTERPRETATION

PART II

It consists of 25 multiple choice questions to assess the knowledge of expression and storage of breast milk. Employed postnatal Mothers had been interviewed. Each correct answer was given a score of 'one' and wrong answer was given a score of

'zero'. Based on scoring the percentage of knowledge was calculated by using the formula.

$$\text{Score interpretation} = \frac{\text{Obtained score}}{\text{Total Score}} \times 100$$

Score Description

≥ 50%	Inadequate knowledge
51-75%	Moderately adequate knowledge
≤ 75%	Adequate knowledge

PART III:

Focused on attitude towards the expression and storage of breast milk. It consists of ten items.

The positive statements had been scored in the order as

Disagree - 1

Uncertain - 2

Agree - 3

The negative statements had been scored in the order as

Agree - 1

Uncertain - 2

Disagree - 3

STATISTICAL METHOD

Descriptive statistical analysis and inferential statistical analysis methods had been used to find out the percentage, mean, standard deviation, Paired 't' test ,co-efficient of co-relation, and chi square test .

Table: 4.2

S.No	Data analysis	Methods	Remarks
1.	Descriptive analysis	The total number, percentage, mean and standard deviation.	To describe demographic variables of the employed postnatal mothers.
2.	Inferential statistics	Paired ' t ' test	To assess the knowledge and attitude of the pre and post test.
		Co-efficient of correlation	To assess the effectiveness of structured teaching programme.
			To correlate knowledge and attitude about expression and storage of breast milk feeding practices.
		Chi-square test	Detected to analyze the association between demographic variables and knowledge on expression and storage of breast milk among employed postnatal mother.

DATA ANALYSIS AND INTERPRETATION

SECTION –A

Frequency and percentage distribution of demographic variables of employed postnatal mothers.

SECTION – B

Frequency and percentage distribution of pre test and post test level of knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.

SECTION – C

Comparison between mean and standard deviation of pretest and posttest of effectiveness of structured teaching programme on expression and storage of breast milk among employed postnatal mothers

SECTION – D

Mean and standard deviation of improvement score for expression and storage of breast milk among employed postnatal mothers

SECTION – E

Correlation between knowledge and attitude on expression and storage of breast milk.

SECTION – F

Analyzing the association between demographic variables and knowledge and attitude on expression and storage of breast milk among employed postnatal mothers

SECTION –A

TABLE 4.1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF EMPLOYED POSTNATAL MOTHERS

N=60

S.NO	DEMOGRAPHIC VARIABLES	SCORE	PERCENTAGE (%)
1.	**Age**		
	a) 19-21 years	8	13.30
	b) 22-26 years	15	25.00
	c) 27-33 years	24	40.00
	d) >33 years	13	21.67
2.	**Educational status**		
	a) Illiterate	06	10.00
	b) School level	21	35.00
	c) Collegiate	26	43.33
	d) Professional graduate	07	11.67
3.	**Occupation**		
	a) Government employee	08	13.33
	b) Private employee	27	45.00
	c) Daily wagers	25	41.67
4.	**Monthly income**		
	a) < 3000 per month	03	05.00
	b) 3001-5000 per month	28	46.66
	c) 5001-10,000 per month	22	36.67
	d) > 10,000 per month	07	11.67
5.	**Types of family**		
	a) Nuclear	39	65.00
	b) Joint	21	35.00

6.	**Religion** a) Hindu b) Muslim c) Christian d) Others	 44 09 05 02	 73.33 15.00 08.33 03.30
7.	**Number of children** a) One b) Two c) Three and above	 33 25 02	 55 41.67 3.33
8.	**Previous experience with expression and storage of breast milk** a) Yes b) No	 12 48	 20 80
9.	**Sources of information on expression and storage of breast milk** a) Health personnel b) Mass media c) Friends d) Family members	 43 12 02 03	 71.67 20.00 3.33 05.00

Table 4.1 depicts the frequency and percentage distribution of the personal factors of demographic variables of employed postnatal mothers. Out of 60 mothers, with regard to the age of the mother eight (13.33%) were in 19 - 21 years, 15 (25%) between 22- 26 years, 24(40%) in 27- 30 years, 13(21.67%) above > 30years. Regarding educational status six (10%) were illiterate, 21 (35%) had school level, 26(43.3%) had collegiate, seven (11.67%) in professional graduate. Regarding occupational status, eight

(13.33%) were government employee, 27(45%) private employee, 25(41.67%) daily wager. Regarding Income three (5%) earning up to Rs 3000 per month, 28(46.6%) up to Rs 3001-5000 per month, 22(36.67%) up to Rs 5001-10,000 per month, seven (11.67%) earning above Rs 10,000 per month. Type of family reveals about 39(65%) belonged to joint family, 21(35%) belonged to nuclear family. Regarding the religion 44(73.33%) Hindu, nine (15%) Muslims, five (8.33%) Christian, two (3.33%) others. Regarding number of children 33 (55%) had one child, 25(41.67%) had two children, two (3.33%) had above two children. Previous experience of expression and storage of breast milk feeding practices 12(20%) said yes, 48(80%) said No. Regarding the source of information, 43 (71.67%) had from health personnel, 12 (20%) from mass media, two (3.33%) from friends, three (5%) had from family members.

SECTION – B

TABLE – 4.4.1 FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE AMONG EMPLOYED POSTNATAL MOTHERS

N=60

Knowledge	Adequate		Moderate		Inadequate	
	N	%	N	%	N	%
Pre test	-	-	5	08.03	55	91.07
Post test	40	66.07	20	33.03	-	-

Table 4.4.1 shows that the knowledge regarding expression and storage of breast milk, through the pre test and post test based on questionnaire method. On the pre test among 60 mothers five (8.3%) mothers had moderate knowledge, 55(91.7%) mothers had inadequate knowledge, none of them was in adequate knowledge. In the post test 40(66.7%) mothers had adequate knowledge, 20(33.33%) mothers had moderate knowledge and none of them was in inadequate knowledge.

SECTION – C

TABLE – 4.5 COMPARISON BETWEEN MEAN AND STANDARD DEVIATION OF PRE TEST AND POST TEST SCORE OF KNOWLEDGE AND ATTITUDE REGARDING EXPRESSION AND STORAGE OF BREAST MILK

VARIABLES	PRE TEST		POST TEST	
	Mean	SD	Mean	SD
Knowledge	10.08	1.89	19.63	2.16
Attitude	13.03	1.84	22.93	1.92

Table 4.5 reveals that pre test knowledge mean was 10.08 with standard deviation of 1.89 and post test knowledge mean was 19.63 with standard deviation of 2.16. Pre test attitude mean was 13.03 with standard deviation of 1.84 and post test mean was 22.93 with standard deviation of 1.92.

SECTION D

TABLE – 4.6 MEAN AND STANDARD DEVIATION OF PRE TEST AND POST TEST SCORE OF EMPLOYED POSTNATAL MOTHERS

N=60

PRE - POST TEST	PAIRED DIFFERENCE					't' Value
	MEAN	STANDARD DEVIATION	STANDARD ERROR MEAN	95% CONFIDENCE INTERVAL OF THE DIFFERENCE		
				UPPER	LOWER	
Pair I Improvement score of knowledge.	**9.55**	**1.43**	**0.18**	**9.18**	**9.91**	**51.68***
Pair II Improvement score of attitude.	**9.90**	**2.20**	**0.28**	**9.32**	**10.470**	**34.74***

*P<0.05 level significant

Table 4.6 reveals the improved mean and standard deviation of effectiveness of knowledge and attitude on expression and storage of breast milk. Among 60 mothers the improved mean score of knowledge was 9.5 with the standard deviation of 1.4. The improved mean score of attitude was 9.9 with the standard deviation of 2.2. The confidential interval of knowledge score was -9.18-9.92.The confidential interval of attitude on expression and storage of breast

milk score was 9.33 -10.47. Paired “t” value for knowledge was 51.6 and for attitude 34.7. This implies that the structured teaching programme was effective in improving knowledge and attitude regarding breast milk.

SECTION – E

TABLE – 4.7 CORRELATION BETWEEN KNOWLEDGE AND ATTITUDE ON EXPRESSION AND STORAGE OF BREAST MILK

POST TEST KNOWLEDGE SCORE	POST TEST ATTITUDE SCORE				TOTAL		CORRELATION
	GOOD		FAIR		N	%	
MODERATE	8	13.03	12	20	20	33.03	0.134*
ADEQUATE	16	26.07	24	40	40	66.07	

Table 4.7 depicts the correlation between knowledge and attitude on expression and storage of breast milk feeding practices after structured teaching programme. There was a positive correlation between knowledge and attitude.

SECTION – F

TABLE – 4.8 ASSOCIATION BETWEEN DEMOGRAPHIC VARIABLES AND POST TEST SCORE OF EXPRESSION AND STORAGE OF BREAST MILK AMONG EMPLOYED POSTNATAL MOTHERS

S. NO.	DEMOGRAPHIC VARIABLES	POST TEST SCORE						
		INADEQUATE		MODERATELY		ADEQUATE		
		N	%	N	%	N	%	
1	Age							
	a. 19 – 21 years	00	00	05	08	03	05	5.088 (NS)
	b. 22 – 26 years	00	00	06	10	09	15	
	c. 27 – 30 years	00	00	05	08	19	32	
	d. Above 30 years	00	00	04	07	09	15	
2	Educational status							
	a. Illaterate	00	00	05	08	01	02	7.755* (S)
	b. School level	00	00	05	08	18	27	
	c. Collegiate level	00	00	08	13	18	30	
	d. Professional Graduate	00	00	02	03	05	08	
3	Occupation							
	a. Goverment employee	00	00	02	03	06	10	0.5* (S)
	b. Private employee	00	00	08	13	19	32	
	c. Daily wages	00	00	10	17	15	25	
4	Religion							
	a. Hindu	00	00	14	23	30	50	0.315 (NS)
	b. Christian	00	00	03	05	06	10	
	c. Muslim	00	00	02	03	03	05	
	d. Others	00	00	01	02	01	02	
5	Type of Family							
	a. Nuclear	00	00	11	18	28	47	1.319 (NS)
	b.Joint	00	00	09	15	12	20	
6	No. of Children							
	a. Yes	5	16.6	-	-	5	16.6	0.2 (NS)
	b. No	24	80.0	1	3.4	25	83.4	

	Income / Month							
	a. <Rs.3000	00	00	03	05	00	00	8.162 (NS)
	b. Rs.3001 – 5000	00	00	06	10	22	37	
	c. Rs.5001 – 10,000	00	00	06	10	14	23	
	d. Above Rs.10,000	00	00	03	05	04	07	
6	No. of Children							6.545* (S)
	a. One	00	00	13	22	20	33	
	b. Two	00	00	05	08	20	33	
	c. Above Two	00	00	02	03	00	00	
5	Previous Experience							0.469 (NS)
	a. Yes	00	00	03	05	09	15	
	b.No	00	00	17	28	31	52	
9.	Source of Information							0.262 (NS)
	a. Health Personnel	00	00	14	23	29	48	
	b. Mass Media	00	00	04	07	08	13	
	c. Friends	00	00	01	02	01	02	
	d. Family members	00	00	01	02	02	03	

N – Non Significant **NS – Non Significant**

Table 4.8 Shows that there was a significant association between post test level of knowledge and education, number of children. There was no significant association between the other demographic variables like age, occupation, income, family type, religion, previous experience, and source of information. Hence we could realize that there is an effectiveness of structured teaching programme on knowledge and attitude on expression and storage of breast milk.

CHAPTER –V

RESULTS AND DISCUSSION

The aim of the study was to assess the effectiveness of structured teaching programme on expression and storage of breast milk among employed postnatal mothers. A total number of 60 employed post natal mothers had been selected for the study. The pre test was conducted using questionnaire and three part Likert attitude scale. The duration of the pre test ranged from 20-30 minutes for each mother.

After the pre test a teaching programme had been given with the help of the charts, posters and hand out to the employed post natal mothers. After seven days, post test was conducted by using same questionnaire and three part likert attitude scales.

The study proved that structured teaching programme has brought about excellent changes in the level of knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.

The first objective was to assess the knowledge and attitude regarding expression and storage of breast milk among employed postnatal mothers.

The assessment of the knowledge regarding expression and storage of breast milk feeding practices had been carried out in residential areas of sothupakkkam, Kancheepuram district. The employed postnatal mothers who met inclusion criteria were selected and each of them was assessed with demographic variables, questionnaire method and attitude scale. The data analysis showed that on the pre test among 60 mothers five (8.3%) mothers had moderate knowledge, 55 (91.7%) mothers had inadequate knowledge, none of them was in adequate knowledge. In the pre test eight (13.3%) had fair attitude, 52 (86.07%) mothers had poor attitude. In the post test 36 (60%) mothers had good attitude 24(40%) had fair attitude none of them was in poor attitude. In the post test 40 (66.7%) mothers had adequate knowledge, 20 (33.33%) mothers had moderate knowledge and none of them was in inadequate knowledge. It reveals that, employed postnatal mothers need educational programme to improve their knowledge about expression and storage of breast milk.

The second objective was to determine the effectiveness of structured teaching programme on expression and storage of breast milk among employed postnatal mothers.

Among 60 mothers the improved mean score of knowledge was -9.5 with the standard deviation of 1.4. The improved mean score of attitude was -9.9 with the standard deviation of 2.2.The confidential interval of knowledge score was -9.18-9.91.The confidential interval of attitude on expression and storage of breast milk score was -9.32 -10.47. Paired “t” value for knowledge was 51.6 and for attitude was 34.7. This implies that the structured teaching programme was effective in improving knowledge and attitude regarding breast milk.

The third objective was to associate the effectiveness of structured teaching programme on expression and storage of breast milk with their demographic variables.

Table 4.8 shows that there was a significant association between post test level of knowledge and education, number of children. There was no significant association between the other demographic variables like age, occupation, income, family type, religion, previous experience, and source of information. Hence we realize there is an effectiveness of structured teaching programme

on knowledge and attitude on expression and storage of breast milk.

CHAPTER –VI

SUMMARY AND CONCLUSION

SUMMARY

The present study was conducted to assess the effectiveness of structured teaching programme on expression and storage of breast milk among employed postnatal mothers. Pre experimental one group pre test post test research design had been used for this study. 60 employed post natal mothers who met inclusion criteria had been selected from selected residential areas of sothupakkam village, by using systematic sampling technique. The investigator first introduced herself to the employed postnatal mothers and developed a rapport with them. The pre test was conducted with the questionnaire, then planned teaching programme was given regarding expression and storage of breast milk by using charts, posters and handouts. After seven days the post test was conducted by using same evaluation tools. The data collected was grouped and analyzed by using descriptive statistics and inferential statistics.

CONCLUSION

In the post test 40 (66.7%) mothers had adequate knowledge, 20 (33.33%) mothers had moderate knowledge and none of them was in inadequate knowledge. In the post test 36 (60%) had the good attitude 24(40%) mothers had fair attitude and none of them was in poor level. Paired 't' test score of knowledge was -51.69. Paired't' test score of attitude was -34.75. There was a significant co relation between post test knowledge and attitude.

FINDINGS OF THE STUDY

- In the post test, out of 60 mothers 40 (66.7%) mothers had adequate knowledge, 20 (33.33%) mothers had moderate knowledge and none of them was in inadequate knowledge.
- In the post test 36 (60%) had good attitude, 24 (40%) mothers had better attitude.
- Pre test knowledge mean was 10.08 with standard deviation of 1.89 and post test knowledge mean was 19.63 with standard deviation of 2.16. Pre test attitude mean was 13.03 with standard deviation of 1.84 and post test mean was 22.93 with standard deviation of 1.92. It reveals that there was significant changes in pre test and post test mean and standard deviation.

- There was a positive correlation between knowledge and attitude. The correlation value for knowledge and attitude was 0.134*.
- There was a significant association between the effectiveness of structured teaching programme on expression and storage of breast milk feeding practices with the demographic variables.

IMPLICATION OF THE STUDY

NURSING PRACTICE

Health care professionals should educate the mothers regarding the practice and breast feeding techniques regularly as a part of their community services.

Employed postnatal mothers will be able to start expressed breast milk feeding, if they are provided with adequate information and encouragement.

It enhances the independent functioning of nurses as well as the mothers

Nurses' major role in promoting the health of the mothers and children by various extended and expanded role.

This concept can be practiced by community health nurses and the health workers can be educated by the nurses subsequently.

NURSING EDUCATION

Students may be given chances to provide health education regarding expression and storage of breast milk feeding practices.

Health education programmes can be organized by the studies in the community and hospital settings.

Continuing nursing education programme can be organized on this aspect.

This study emphasizes the significance of short term courses, Inservice education for nurses to acquire advanced knowledge regarding the expression and storage of milk.

Nurse educator, should plan with an ample opportunity for the students to educate the mothers and provide care in the community hospital settings.

The curriculum should include newer advancement in Maternal and child health practices.

NURSING ADMINISTRATION

Nursing leaders have been challenged to take the health needs of the most vulnerable groups especially, the mother and child health by effective organization and management.

The nurse administrator can formulate procedures and policies regarding precaution to be taken, they should organize and implement ongoing education and in-service education programme regarding expression and storage of breast milk feeding practice.

The nursing conferences and group discussions can be organized by the administrator periodically.

The nurses can be provided with adequate allocation of budget and man power to implement effective health education which helps the mother to gain adequate knowledge and become confident to meet the needs of self.

NURSING RESEARCH

Management and administrative authorities should give encouragement, motivation, and financial support to conduct the research.

The effectiveness of the study for the research field is verified by its utility by the nurses in the practical field.

The findings of the study will help the professional nurses and students to develop the enquiry for further research.

RECOMMENDATIONS

On the basis of the findings of the study, the following recommendations have been made:

A similar study can be replicated on a large sample to generalize the findings.

A study can be conducted by including additional demographic variables.

Manuals, information booklets and self instructional module may be developed in areas of expressed breast milk feeding practices.

A study can be carried out to evaluate the efficiency of various teaching strategies like self instructional module, pamphlets, leaflets, and computer assisted instruction on expression and storage of breast milk.

Based on the study finding, intervention can be given to the community through mass media, role play, and class room teaching etc to enhance the knowledge.

BIBILIOGRAPHY

1. **Alliyard MR(2002), "**Nursing theorist and their work", 5th edition, Mosby company, **Philadelphia.**
2. **Amaranth s bhickle, ammeetes patki, jesse M Levi,(2003),** "A textbook of obstetrics for nurses and midwives", pregnancy and child birth, medical(P) ltd, **jaypee brothers**, New Delhi.
3. **Arulkumaran,S,Alokender.c,** "Essentials of obstetrics and Gynaecology", 1st edition, New Delhi, **Jaypee brothers**.
4. **Basavanthappa (2005)**. "Nursing Research", **Jaypee brothers**, **medical publishers**(**p**) **ltd**, New Delhi.
5. **Betty sweet r.mayers midwifery,**" A Textbook for midwives, 11th edition dindal", tindal English language book society, **Ballier**.
6. **Bevis (1997),** "Caring for Women", 5th edition, London, **Churchill Livingston publishers.**
7. **Bijoi sree senguota(1999),** "Obstetrics for post graduate and practioners", first edition, **B.I.Churchill Livingston pvt, ltd**.
8. **Bobek Jensen(1993),** "Maternity and Gynaecological care", fifth edition, **Mosby publications**, **Philadelphia**.

9. **Burroughs**, “Maternity Nursing an Introduction Text”, 7th edition, **W.B. saunders company, London.**

10. **Carpentio,j. Lynda(1992).**” Nursing diagnosis, application to clinical practice ,4th edition, **J.B.Lippincot company.**

11. 11.**Chamberlain.g.(2001)**,” Obstetrics for PG and practioners, 3rd edition, **Churchill livingstons private limited.**

12. 12.**Dattary Chakravathi(2003),** “Manual of Obstetrics”, 2nd edition published by **Elsevier**.

13. 13.**Dewhurst’s(1999), “**Textbook Of Obstetrics and Gynaecology for PG, 6th edition, **Blackwell science**, London.

14. **Diane.M. Frances Marget .A. Cooper,**” Myles textbook for midwives, 14 th edition, **Churchill livingstone**, London.

15. **Dutta. D. C (2004),** “Textbook of obstetrics including perinatology and contraception”, 6 th edition, Calcutta, **new central book agency private limited**.

16. **Gulani k. M.(2003),**” Nursing care plan, Diagnosis and Nursing Intervention 5th edition, **Mosby publications**, London.

17. **Gupta s.p(2002)**: “statistical methods” , **sulvian** and **son publication**, New Delhi.

18. **Ian Donald(1996),** “practical obstetric problem”, 5th edition, **B.I, publications,** NewDelhi.

19. **Jacob Anaya(2000)**, “A Comprehensive textbook of midwifery’’, medical publishers(p)limited, **Jaypee brothers**, newdelhi.

20. **Julia.B(1998),** “Nursing theories the base for professional nursing practice” , 3rd edition, **pventice hall private limited**, California.

21. **Lowdermilk,” Pery Babok(1997), “** Maternity and women’s health care” , 6 th edition **Mosby** publishers, Philadelphia.

22. **lynna.y. Littleton, joan engebreston.c.(2000), “**Maternal, neonatal and women’s health nursing,” published by **William brottneer,** Delmar.

23. **Marcia London L, Patricia W, Lade wig, Janew, Ball, Ruth Bindley C,(2003), “**Maternal Newborn and Child nursing, Family centre care”, **Juries Levin Alexander practice hall**, new jessey.

24. **Mathews**. **A.J**. **(2000)**, “Using and understanding medical statistics”, **karger publishers**, newyork.

25. **Mudhaliar A.C.Krishnan M.K,** "Mudhaliar and menon's , clinical obstetrics", 9th edition, **orient lontman**, 1994.

26. **Nancy.A,Didona, Margaret G, Marks(1996),** "Introductory Maternal Newborn nursing", J.B, Publishers, **Lippincott company.**

27. **Nancy .Burns,Susan K,** "Understanding nursing research building and evidence based practice", 4th Edition, **Saunders** publishers.

28. **Netter's(2002),** " Obstetrics and Gynaecology and women's health", 1st edition, published by icon learning system, **Newjessy**.

29. **Parthnath Mukherji(2002)**. "Methodology in social research, diremman and perspectives", NewDelhi sage publications".

JOURNAL REFERENCES

1. **Brown, C.A., (2001)** “Exploring large employer and small employer’s knowledge, attitude and practices on breast feeding support in the work place”, **Journal Human Lactation** 17(3), 13 – 4**6.**
2. **Collin, W.B., Scott, J.A.,(2002)** “Breast feeding reasons for starting, and problems along the way breast feed Review ” , **Journal Human Lactation** (10) (2), 13-17.
3. **Compbell,H., Gorman, D.,(1995) “** Audit of the support for breast feeding mothers in five maternity hospital using adopted breast material” , **Journal of public health and medicine,** volume 17(4), 450-454.
4. **Dewan, N., Wood.L.,(2002).** “Breast feeding knowledge and attitudes of teenage mothers inliverpool’’,**Journal of Human nutrition diet,** 15(1), 33-37
5. **Gupta.A.,Sobtij.J.,(2008). “**Infant feeding practices among patients of paediatrics and general practitioners” , **Indian journal of peadiatrics.**193-196.

6. **Morse, J.M., Bottoff J.L.,2009.** "Intending to Breast feed and work". Journal of obstetrics Gynaecological and Neonatal Nursing, 17; 493-500.
7. **Veronoces Valdes et,al.,2008**. "Clinical support can make the difference in exclusive breast feeding success among working women''. **Journal of tropical pediatrics,** 46; 149-153.
8. **Hills G Sharon, 2003**. "Women experience with combined breast feeding and employment'' **Journal of Nurse and Midwife**, 38:257-266.
9. **Auerback K.G 2006. "**Maternal Employment during the early post partum period" **Journal of pediatrics**, 83: 524-531.
10. **Zinaman et al, 2004.**Efficiency of various methods of removing milk from the breast". **International Child Health,** 3:45-51.

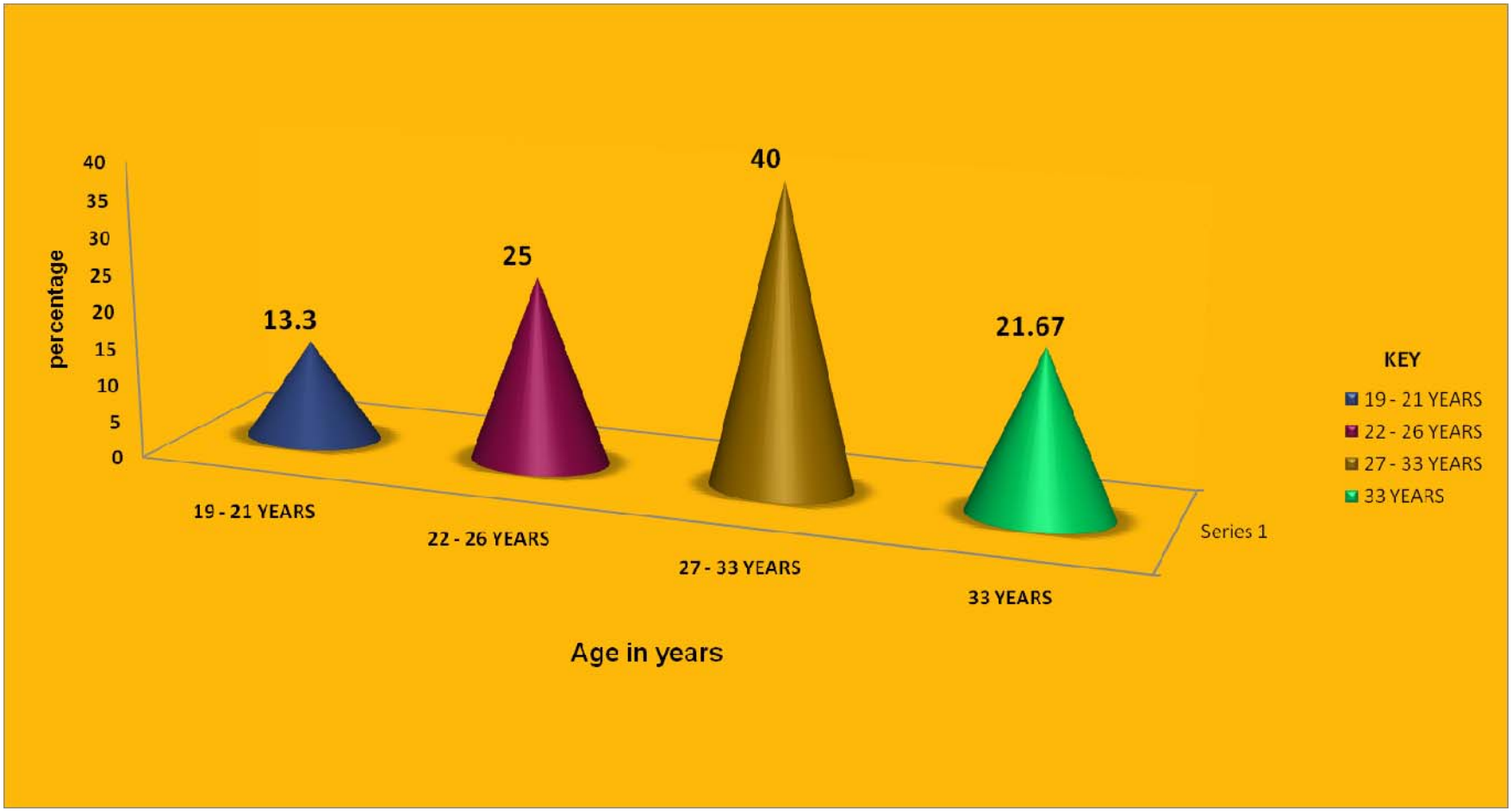

FIGURE 4.3.1 PERCENTAGE DISTRIBUTION OF EMPLOYED POSTNATAL MOTHERS BASED ON AGE.

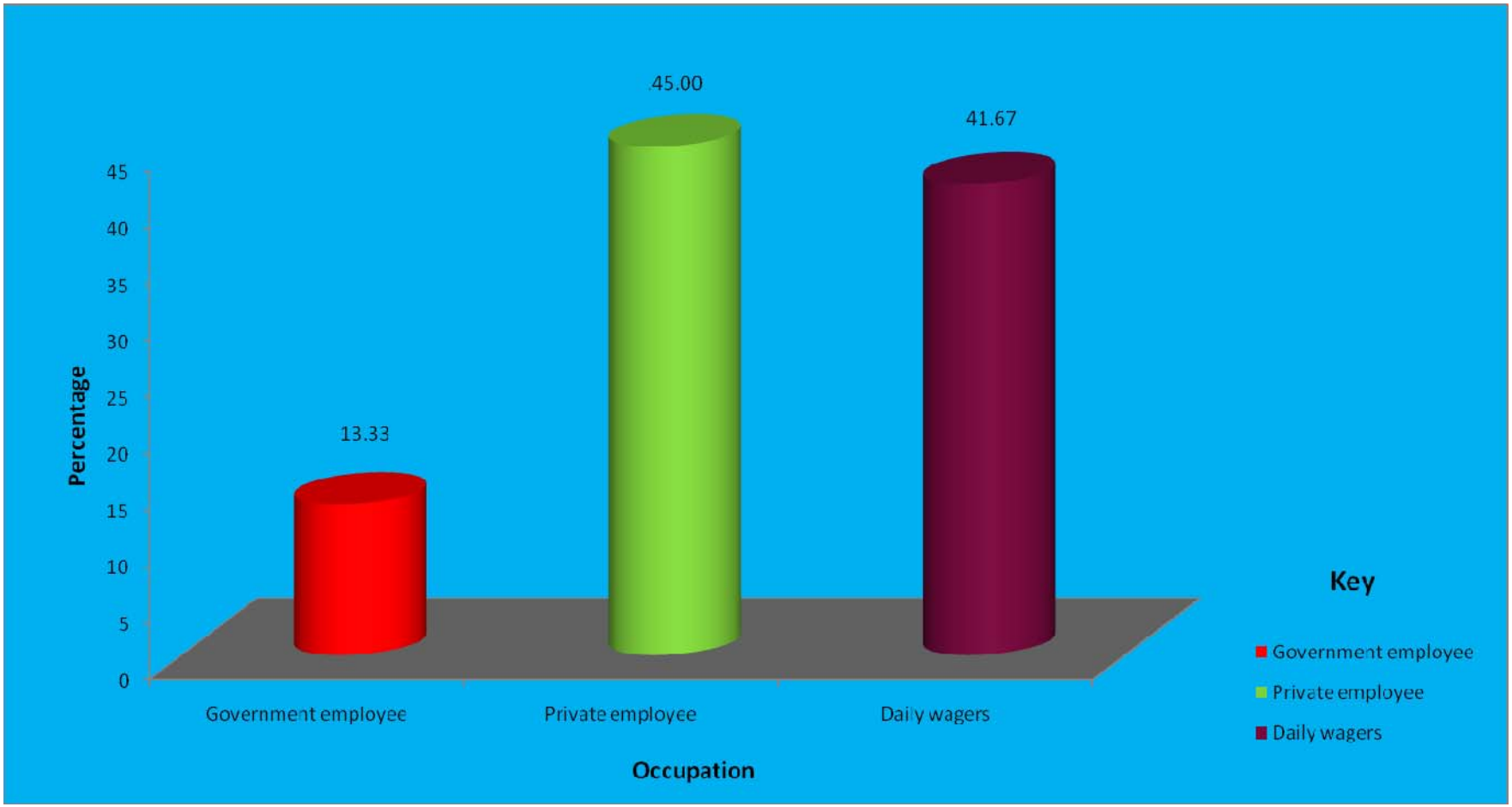

FIGURE 4.3.3 PERCENTAGE DISTRIBUTION OF EMPLOYED POSTNATAL MOTHERS BASED ON OCCUPATION.

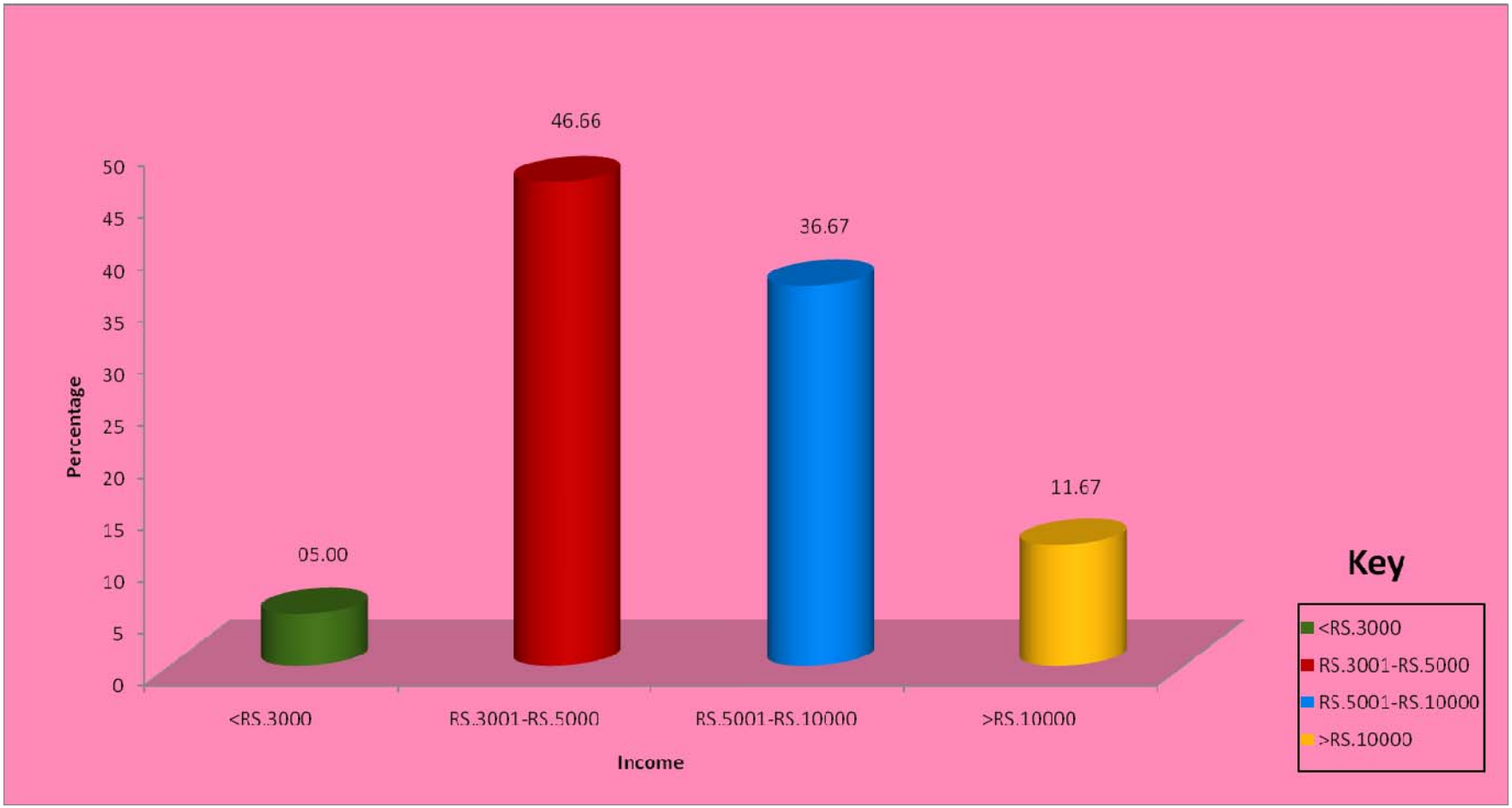

FIGURE 4.3.4 PERCENTAGE DISTRIBUTION OF EMPLOYED POSTNATAL MOTHERS BASED ON INCOME.

FIGURE 4.3.5 PERCENTAGE DISTRIBUTION OF EMPLOYED POSTNATAL MOTHERS BASED ON TYPE OF FAMILY.

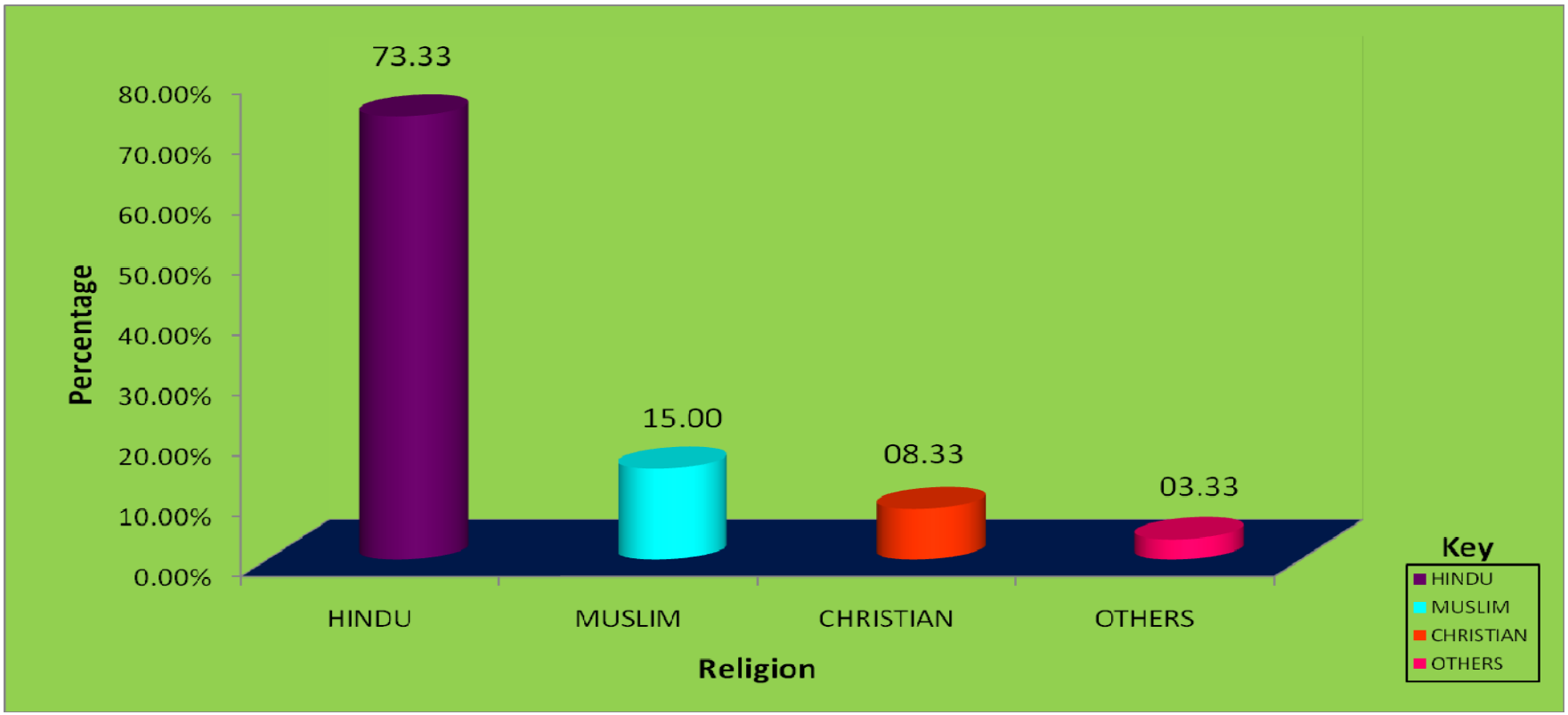

FIGURE 4.3.6. PERCENTAGE DISTRIBUTION OF DEMOGRAPHIC VARIABLES OF EMPLOYED POSTNATAL MOTHERS BASED ON RELIGION.

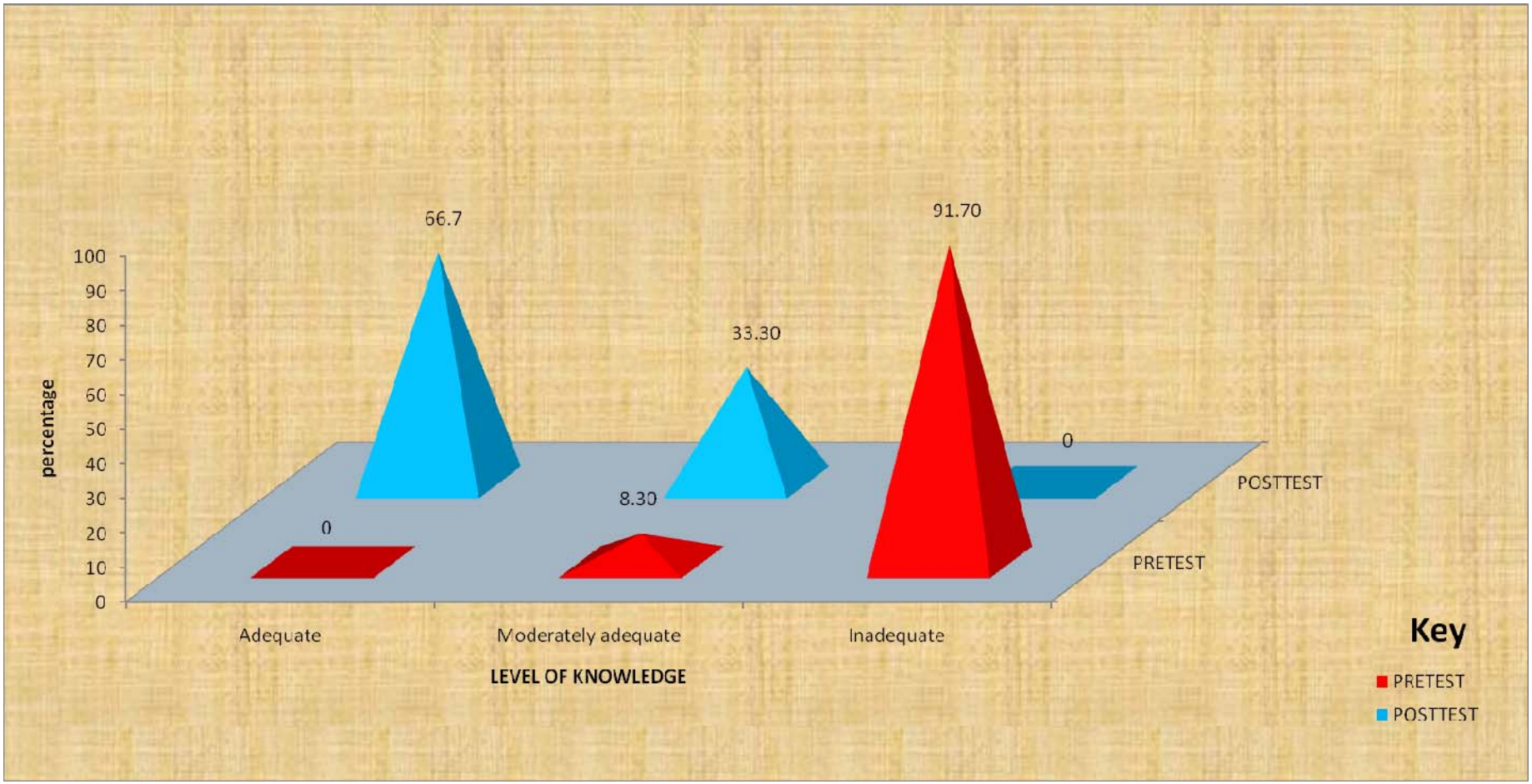

FIGURE 4.2.1. PERCENTAGE DISTRIBUTION OF MOTHERS REGARDING LEVEL OF KNOWLEDGE.

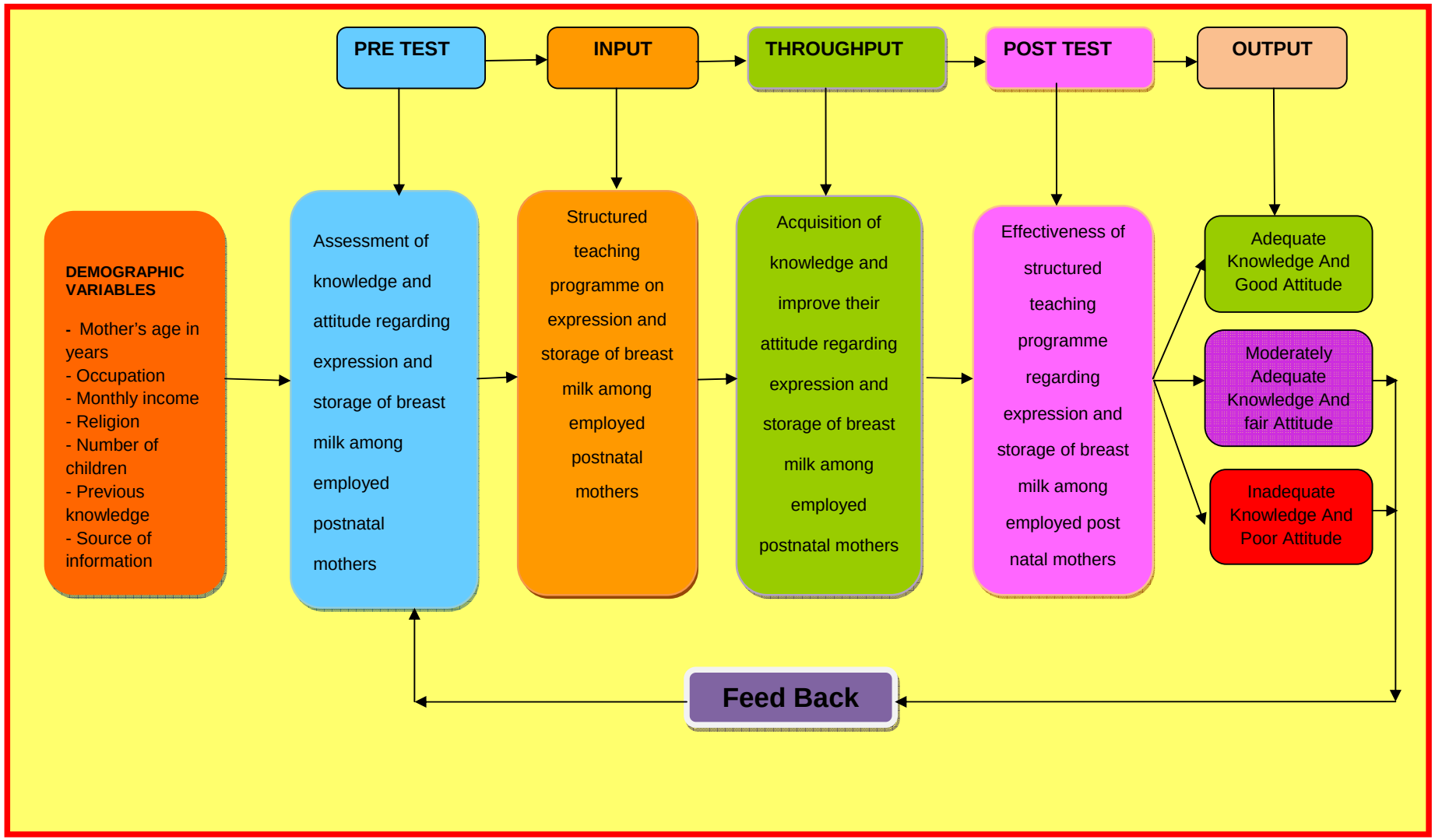

Fig 1.1: Modified Bertalanffy Conceptual Framework (2011)

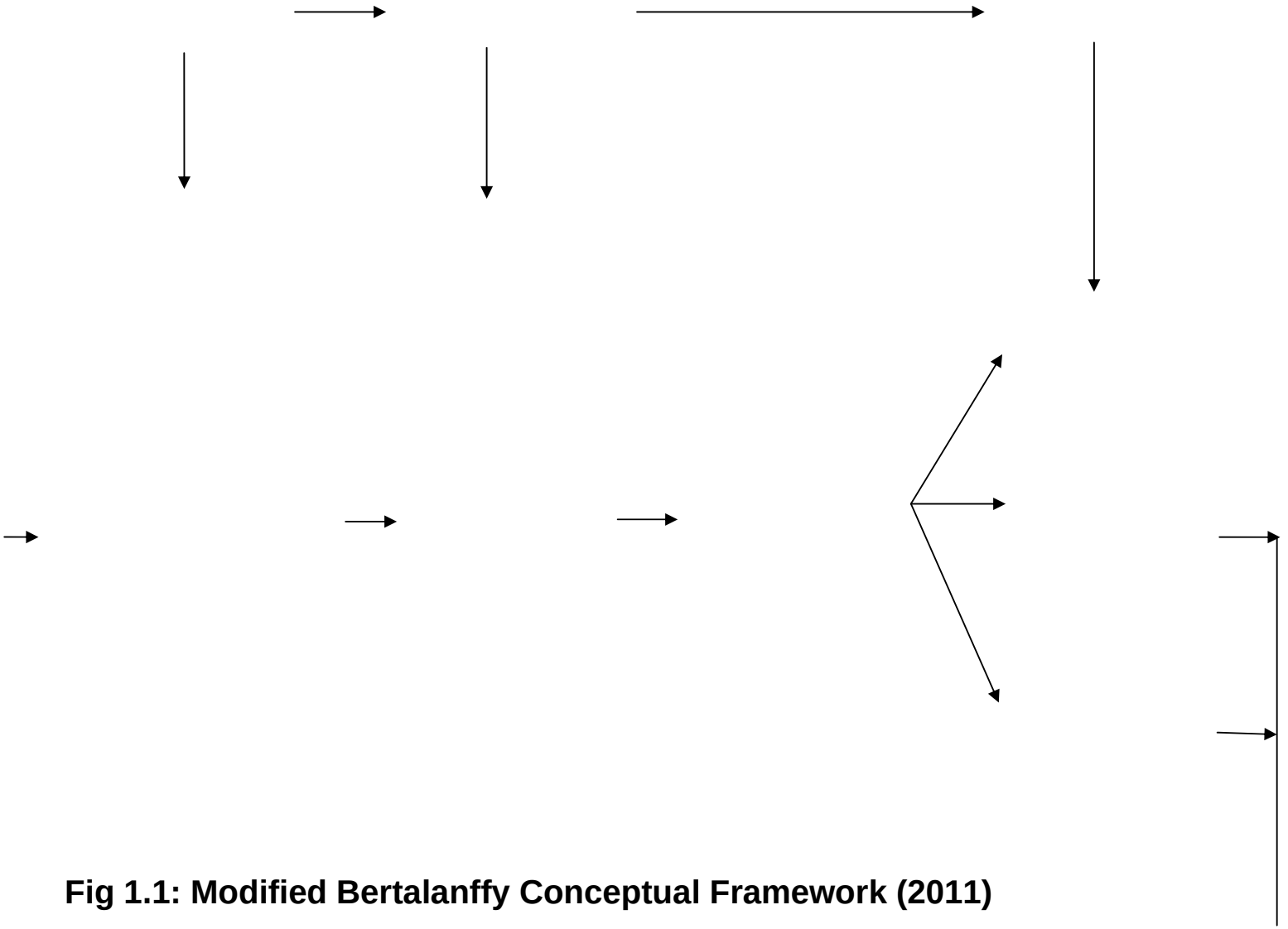

Fig 1.1: Modified Bertalanffy Conceptual Framework (2011)

STRUCTURED TEACHING PROGRAMME

COURSE	:	M.Sc (N) II YEAR
SUBJECT	:	OBSTETRICS AND GYNAECOLOGICAL NURSING
TOPIC	:	EXPRESSION AND STORAGE OF BREAST MILK
GROUP	:	POSTNATAL MOTHERS
DURATION	:	45 MINUTES
EVALUATOR	:	Dr. N. KOKILAVANI, M.Sc (N), M.Phil, Ph.d., PRINCIPAL
STUDENT TEACHER	:	G. ELAIYAMUDHA
METHOD OF TEACHING	:	LECTURE CUM DISCUSSION
AV. AIDS	:	POSTER,CHART & HANDOUT

CENTRAL OBJECTIVE :

Help the mothers to gain adequate knowledge, desirable attitude and skill about expression and storage of breast milk.

CONTRIBUTORY OBJECTIVE :

The postnatal mother will be able to

→define the term breast feeding

→state the meaning for expressed breastmilk

→listout the advantages of breast feeding

→enlist the indications for expression of breast milk

→enumerate the methods, in expressing of breast milk

→explain the techniques of expression

→explain about the storing of expressed breast milk

S.NO	CONTRIBUTORY OBJECTIVE	TIME	CONTENT	TEACHER' ACTIVITY	LEARNER'S ACTIVITY
1	define the term breast feeding	2min	**INTRODUCTION:** In some situations, expression of breast milk is necesary (or) desirable, such as when engorgement occurs, the mother and baby are separated. (e.g. preterm (or) sick newborn). The mother is employed out side of the home and needs to maintain her milk supply. **GENERAL ASPECT ON BREAST FEEDING:** DEFINITION OF BREAST FEEDING: It refers to the type of feeding the baby with milk directly coming from the mother's breast. Alll the babies regardless of the type of delivery should be given early and exclusively breast feeding upto 6 months of age.	Explaining by Chart	Listening

			EXCLUSIVE BREAST FEEDING: Exclusive breast feeding providing nothing orally other than colostrum and breast milk. The ideal food for baby soon ofter delivery is breast milk. Colostrum, the yellowish, sticky breast milk produced at the end of pregnancy, is recommended by Who asthe prefect food, for the new born, and feeding should be iniliated with in half and hour after birth. Exclusive breast feeding is recommended upto 6 months of age, with continued breast feeding along with appropriate complentary food up to two years ofage (or) beyond.		
2	list out the advantages of breast feeding	3 min	**ADVANTAGES OF BREAST FEEDING:** ➢ Ideal composition for easy digestion with low osmotic load. It contains fat, protein, Who minerals and vitamins.	Explaining	Observing

			➢ Protection against infection and deficiency states. a) It contains vitamin D which protects the baby against rickets. b) It contains (i) lactoferrin, lyzozyme, Lactoperoxidase and leukocytes. c) It confers passive immunity to the baby as the milk contains protective antibadies. → Breast milk are readily available → It is more convenient, requiring no preparation and cost nothing. → Breast feeding acts as a natural contraception Additional Advantages : (i) It has laxative action (ii) No Danger of allergy (iii) Psychologic benefit by establishing healthy		

			mother- child relationship THE FIRST FEED: The initial feeding should start with in half an hour after birth. The ideal food for baby soon after delivery is breast milk. FREQUENCY OF FEEDING- TIME SCHEDULE: During the first 24hours, the mother should feed baby at an interval of 2-3 hours. Gradually, the regularity becomes established at 3- hour patern by the end of first week. Baby should be fed more on demand. DEMAND FEEDING: The baby is put to the breast as soon as the baby becomes hungry. There is no restriction of the number of feeds and duration of sucking time.		

3	state the meaning for expressed breast milk	2min	BREAKING THE WIND:- (Burping): All babies swallow varied amount of air during sucking. To break up the wind, the baby should be held upright against the chest and the back is gently patted till the baby belches out the air. It is better to break up the wind in the middle of sucking as to make the stomach empty, enabling the baby to take more food. **EXPRESSION OF BREAST MILK:** Expression of breast milk is getting milk from your breast without your baby sucking it your breast milk can be expressed using your hands. This is called hand expression (or) manual expression. Hand expression may work well of you only need to express milk once in a whole. You can also use a breast pump to express milk from your breasts. A breast pump may work well it you are away from your baby. For example, you	Explaing	Listening

			may be at work for several hours before you can breasfeed again.		
4	enlist the indications for expression of breast milk	2min	**INDICATIONS OF EXPRESSED BREAST MILK ARE:** (i) Where the baby is separated from the mother due to prematurity (or) illness. (ii) when the mother is separated from the baby because of work. (iii) Where there are difficulties in breast feeding as in attacting the baby to the breast. (e.g) cleft palate. (iv) colostrum should always be expressed and given to the babies.	Explaining	observing
5	enumerate the methods in expressing of breast milk feeding	3min	**METHODS OF MILK EXPRESSION**:- (a) Manual expression (b) Breast pumps. MANUAL EXPRESSION: Is advantageous over the mechanical pumping.	Explaing	observing

			It increases the level of prolactin which helps to maintain lactation for longer period. It can be practised any where and costs nothing. STEPS IN MANUAL EXPRESSION: (a) Start with thumb above areola other fingeif below. (b) Press in toward the chest. (c) Squeze milk from lactiferous sinues by compression the breast as the thumb & fingers, side toward. **EXPRESSING WITH A BREAST PUMP**: • Hand pumps • Manual controlled: Most manually operated pumps are not efficient enough to allow initiation of full lactation but they can be useful when expressing is necessary in established lactation. Their major limitation is that they		

			can be used on only one breast at a time. It is helpful to mothers to explain that the pumps function most efficiently if the vaccum phase is considerably longer than the release phase. ELECTRICALLY CONTROLLED: Some pumps provide a regular vaccum and release cycle with variyability in the strength of the suction. Some vary the frequency of the cycle as well. Double pumping is possible with most models, and this has repeatenly been shown to be of benefit, either by reducing the time for which the mother needs to pump at each session to obtain the available milk. DURATION AND FREQUENCY OF EXPRESSING THE BREAST MILK: Express you milk as often as your baby would breast feed, or at least right times a day. Express milk for about 10 to 15 minuts (or) until your		

			milk stops coming out.		
6.	explain the techniques of expression	5min	**TECHNIQUES OF EXPRESSION IN BREAST MILK:** → Wash your hands before you start. → Express into any clean container sendash,bottle, cup (or) bowl etc., you didn't need to boil it, just wash with hot soapy water or run it through the dish water. Don't touch the inner surface after you clean it. → The key to any kind of milk expression is to get the milk to let down. Electric pumps stimulate the let-down reflex automatically in mimicking the baby's sucking action, but women you are hand expressing (or) using a manual pump.You may need to stimulate the let down reflex yourself. Some women	Explaining	Listening

			milk lets down easily but many mothers have to work at it. To help your milk let down. Try looking a picture of your baby, smelling and holding a blanket (or) piece of clothing that smells like him, massaging the breasts, gently rolling the nipple between your fingers, taking a hot bath (or) shower before expressing, apply warm compresses to the breast look at your baby's picture. → Hold the breast with one (or) both hands depending on the size, with the thump on top and the fingers Underneath. Gently compresses the tissue between the fingers and thumbs while rolling them forward, rotating around the breast (or) use the tips of your fingers to massage in small circles all around the breast. Similar to a breast exam. You can also do this type of massage		

			during pumping to encourage the flow of milk. → As the milk begins to flow, you may feel a distinct feeling to heaviness (or) tingling as the milk begins to spray (or) drip out. → Place the container under the breast and learn over it. Grasp the areola by putting your thump on the top and your four fingers on the bottom. → Another method is hold the breast with your thumb on the top of the areola, and the other four fingers cuping the breast from underneeath. With your little finger touching your ribcage. To start expressing, begin a wave like motion by pushing your little finger gently in to the breast, followed by the fourth, third, then index finger while you compress the tissue with your thumb		

			from a bove. Rotates until all area of the breast are compressed. → Repeat the procedure on the other breast once you have rotated all around the first breast, you may want to alternate breasts to more than once, which encourages the multiple let down.		
7.	explain about the storing of expressed breast milk	5min	**STORING EXPRESSED BREAST MILK**.: Breast milk must be stored correctly to reduce the potential for bacterial growth. You can store milk in a bottle in your fridge (or) freezer. But once heated, any unused milk must be thrown away. Unwashed hands and unclean pumps (or) bottle – feeding equipment can contaminate breast milk.	Explaining by chart	Listening

			HYGIENE SUGGESTIONS INCLUDE: → Before expressing, wash your hands thoroughly. → Make sure all equipment including the breast pump and bottles are clean. → If you are using your own expressing eqipment / pump after each use .Washing thoroughly in hot soapy water, rinsing in hot water and storing in a clean covered container are adequate. But however for peace of mind, it is better to sterlized after each use. Stored expressed breast milk in sterlized bottles, containers (or) breast milk plastic bags. Freeze in quantities required for each feed, thus avoiding wastage. Label containers/ bottles with date & time.		

			FRESHLY EXPRESSED BREAST MILK THAT IS STORED INTO A CLOSED CONTAINER: → Can be left at room temperature for 6-8 hrs. → Can be stored in a refrigerator for 3-5days. $<4^0$c, store at back of refrigerator where it is colder. → Can be stored in freezer compartment inside the refrigerator for 2wks. → Can be stored in infreezer with separate door for 3 months → Can be stored in a deep freezer 18^0C for 6-12 months. PREVIOUSLY FROZEN EXPRESSED BREAST MILK: (THAWED IN REFRIGERATOR BUT NOT WARMED) → Can be left at room temperature for 4 hours (or) less		

			→ Can be stored in the refrigerator for 24hrs. → Must not be re- frozen		
8.	discuss about the precautions to be taken	3 min	**PRECAUTION TO BE TAREN:** → The mother should express breast milk after washing hand. → The breast should be cleaned from centre to periphery. → Expressed breast should be taken only from mothers breast. → The nipple should be cleaned with sterile water before and after each feed. → The baby's mouth can be cleaned after each feed by using warm water. → The purpose of burbing the baby after each feed is to expel the air	Explaining	Listening